

# Recombinant human TPI1 protein

Catalog Number: ATGP0763

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-249aa

### UniProt No.

P60174

### NCBI Accession No.

NP\_000356

### Alternative Names

triosephosphate isomerase, TPI, MGC88108, TIM, TPI, Triose-phosphate isomerase 1. Triosephosphate isomerase 1

## PRODUCT SPECIFICATION

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### Molecular Weight

28.8 kDa (269aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT

### Purity

> 95% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

TPI1 (Triosephosphate isomerase) belongs to the triosephosphate isomerase family. TPI1 catalyzes the isomerization of glyceraldehydes 3-phosphate (G3P) and dihydroxy-acetone phosphate (DHAP) in glycolysis and gluconeogenesis. Defects in TPI1 are the cause of triosephosphate isomerase deficiency (TPI deficiency). TPI deficiency is an autosomal recessive disorder. It is the most severe clinical disorder of glycolysis. It is associated with neonatal jaundice, chronic hemolytic anemia, progressive neuromuscular dysfunction, cardiomyopathy and

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increased susceptibility to infection. Recombinant human TPI1 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

MGSSHHHHHH SGLVPRGSH MAPSRKFFVG GNWKMNGRKQ SLGELIGTLN AAKVPADTEV VCAPPTAYID FARQKLDPKI  
AVAAQNCYKV TNGAFTGEIS PGMKDCGAT WVVLGHSERR HVFGESDELI GQKVAHALAE GLGVIACIGE KLDEREAGIT  
EKVVFEQTKV IADNVKDWSK VVLAYEPVWA IGTGKTATPQ QAQEVHEKLR GWLKSNVSDA VAQSTRIIYG GSVTGATCKE  
LASQPDVDGF LVGGASLKPE FVDIINAKQ

### General References

Maquat L.E., et al. (1985) *J. Biol. Chem.* 260:3748-3753

Rodriguez-Almazan C, et al.(2008) *J Biol Chem.* 22

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## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)